RESPONSE TO COMMENT SET 5: ALLIANCE OF COMMUNITIES FOR SUSTAINABLE FISHERIES

Letter dated April 25, 2005

5-1. The plow would cut a trench approximately 3.3 feet (1 meter) wide and 3.3 feet deep, which would be filled in as the plow buries the cable (see Sections 2.2 and 2.2.3 of the Draft EIR/EIS). Section 2.1.1 of the Draft EIR/EIS indicates that 76 percent of the cable would be fully buried, which means that approximately 7.6 miles (12.2 km) would either not be buried or would only be partially buried. Additional information on cable burial is presented in Section 2.2 of the Draft EIR/EIS. As the comment indicates, Figures 4.4-6 and 4.4-7 of the Draft EIR/EIS depict the locations where full, partial, and no burial are anticipated. Please also refer to Table 4.4-1 on page 4.4-17 of the Draft EIR/EIS.

Near the shore, the cable would be placed in a conduit that would be installed using a technique called horizontal directional drilling (HDD). HDD is a steerable boring method, used instead of trenching, for the installation of pipes, conduits, and cables in a shallow arc using a surface-launched drilling rig. It is used for horizontal crossings, such as across rivers and channels, typically from one surface point to another. It is not the same technology or procedure used to directionally drill for offshore oil and gas, although drilling mud or fluid is used to aid the drilling.

5-2. The State CEQA Guidelines [14 CCR §15123(b)(2)] require that the Executive Summary in a Draft EIR include a statement identifying areas of controversy known to the Lead Agency. At the time the Draft EIR/EIS was published, the only area of controversy that had been identified was the Project's potential adverse effect on commercial fishing, specifically economic consequences for individual fishermen if gear were to be damaged or lost if snagged on the MARS cable or science node. The Draft EIR/EIS acknowledges, based on previous analyses of other commercial fiber optic cable projects in California waters, that there is a risk, albeit small, i.e., one snag in 26 years, that trawl doors could snag on the exposed cable, as well as a risk of snagging the science node or attached equipment (see Section 4.2.4 of the Draft EIR/EIS, specifically the discussion of Impact CRF-2). However, pursuant to significance criteria stated in the Draft EIR/EIS, the potential risk is not significant.

As detailed in Section 2.2, otter trawl doors typically penetrate the seafloor between 1-2 inches, but can get as deep as 1.6 ft if the trawl becomes buried or falls on its side. Since trawling has the potential to interact with the cable in both

buried and unburied areas, the impact analysis considered fishing over both buried and unburied cable segments as worst case scenarios, although it is less likely that a snag would occur where the cable is buried as compared to unburied. Other methods of fishing such as traps from the crab fishery were also factored into the impact analysis. Evidence for the lack of cable/fishing gear interaction is represented by the lack of cable snagging along routes installed by AT&T off California in 2000. No snagging occurred even in unburied areas off Morro Bay where fishing (trawling) occurs. In contrast, a recent report by Kogan et al. (2003) indicated that the ATOC cable, an unburied acoustic cable off Half Moon Bay, CA, may have been snagged up to two times presumably by trawlers. Since the cable will be buried to a depth of 3.3 feet (1 m) over 76 percent of the route, it is reasonable to conclude that interactions between fishing gear and the cable will be minimal and snags are unlikely, as detailed in Section 4.2.

5-3. The Lead Agencies are aware that the Applicant and representatives of local fishermen's organizations have been involved in discussions regarding a reimbursement agreement for lost or damaged fishing gear. Such an agreement was not in place at the time of publication of the Draft EIR/EIS (see Section 4.2.4 of the Draft EIR/EIS) and was still not in place at the time this Final EIR/EIS was prepared. Based on the analysis presented in the Draft EIR/EIS, the proposed Project's effect on commercial fishing would be adverse (Class III) but not significant, and therefore, mitigation is not required. However, as stated at the end of the discussion of Impact CRF-2, implementation of a reimbursement process would serve to further reduce adverse impacts on commercial fishing by providing a mechanism to compensate fishermen, e.g., for potential gear losses. The MBNMS will work with State agencies to implement necessary reimbursement provisions for fishing gear that is lost or damaged by the proposed cable.

5-4. The Draft EIR/EIS is a public information document that provides an assessment of the potentially significant environmental impacts of any proposed project based on the requirements of the CEQA (see section 15002, State CEQA Guidelines) and the NEPA. It is not intended to provide an analysis of the legal status of the Project or to speculate about potential legal remedies for parties who may seek damages in the future. However, we confirm that the MARS cable would be owned and operated by MBARI, not the federal government. Notice of the installation of the cable would be published in the Coast Guard's weekly *Local Notice to Mariners* (see Section 4.7.2 of the Draft EIR/EIS). The National Oceanic and Atmospheric Administration's (NOAA) Office of Coast Survey

typically includes cables on navigational charts. In addition, NOAA's National Ocean Service publishes *Coast Pilots*, which are a series of books that cover a variety of information important to navigators, including the locations of cables and descriptions of cable clearances.

5-5. Although the National Marine Sanctuary Program (NMSP) regulations for MBNMS prohibit certain types of activities, they also include a permitting system whereby activities that would otherwise be prohibited may be permitted in some circumstances. A permit for prohibited activities can be issued if the MBNMS Superintendent finds that the activity would have only negligible short-term adverse effects and would: further research related to Sanctuary resources and qualities; further the educational, natural or historical resource value of the Sanctuary; or assist in managing the Sanctuary. MBNMS is currently evaluating the Project as a research project related to Sanctuary resources and qualities. Please also see the response to Comment 5-7 below.

5-6. Section 3.2.3 of the Draft EIR/EIS describes an alternate means of partially achieving the research objectives of the proposed Project, which would entail deployment of a series of moored buoys that would transmit wireless data to shore. This alternative was eliminated from detailed evaluation because it would not achieve most of the Project's objectives, would have various operational disadvantages, and would create potential additional impacts on marine mammals, navigation, and fishing (see Section 3.2.3 of the Draft EIR/EIS). Please also refer to Section 3.3.3 of the Draft EIR/EIS, which describes the No Project/Action Alternative, i.e., the status quo. The No Project/Action Alternative would include continued deployment of research vessels and ROVs to collect data, which would not achieve the proposed Project's objectives (please refer to Section 1.1 of the Draft EIR/EIS).

5-7. The Applicant proposes to conduct the Project to further research related to MBNMS resources and qualities. The Applicant has applied for a research permit and the National Marine Sanctuaries Program (NMSP) staff has been evaluating the Project as such. The authority to permit activities that would further research related to MBNMS resources and qualities comes from MBNMS regulations (15 CFR 922.133(c)). The NMSP has two distinct authorities to allow for the conduct of specific activities within national marine sanctuaries. The most commonly used authority is found in NMSP regulations (15 CFR Part 922) to allow certain types of activities, e.g., research, education, and resource management, that would otherwise be prohibited by the NMSP regulations. The other authority derives from Section 310 of the National Marine Sanctuaries Act

(16 U.S.C. 1441). The latter authority, named "special use permits" by the statute, is generally used for commercial activities requiring access to or use of sanctuary resources. At this time, this Project has been determined to be a research project and would therefore qualify for a research permit per the NMSP regulations at 15 CFR 922. Should the NMSP determine that the Project is not eligible for a research permit, it will consider other potential permitting mechanisms including special use permits and combinations of other permit mechanisms available to the NMSP.

Please refer to response to Comment 5-1 above for an explanation of the HDD method included for near-shore cable installation.

5-8. Relevant provisions of the Coastal Act are summarized in Section 1.4.6 of the Draft EIR/EIS and Table 1-1 indicates that the Project's consistency with the Coastal Act will need to be determined as part of CDP approval. Determination of Project consistency with the Coastal Act is the responsibility of Monterey County and the California Coastal Commission. Please see additional information in this regard in a revised Section 1.4 and Tables 1-1 and 2.7-1 in Section 4 herein. The Draft EIR/EIS does not treat the impacts of the proposed cable any differently than those of any other type of submarine cable.

5-9. Comment acknowledged. Please refer to Section 4.2 of the Draft EIR/EIS, and, e.g., Responses 1-6, 3-3, and various responses to this comment set.

5-10. The Draft EIR/EIS evaluates the potential for trawling to snag the cable based on records of historic trawling activity over three decades. The model used to determine the likelihood of a cable snag or other type of cable failure employed a cable fault rate coefficient (faults per kilometer of cable per year) that was based on an extensive database of records of reported faults in submarine fiber optic cables. The potential reductions in fish catch estimated in the Draft EIR/EIS are based on a conservative, worst-case scenario, which assumes that reductions in fishing revenues would be realized along the entire length of the cable, including both buried and unburied areas.

The data presented in the Draft EIR/EIS considered historic fishing data over a several year period and used a worst-case approach to describe potential impacts to commercial fishing. The analysis did not consider any reductions in fishing from shelf closures, the potential for which was announced after the DEIR/EIS was circulated for review, and accordingly the document does not speculate on potential changes in stocks from such closures. While it is

uncertain whether such closures will be permanent or ultimately modified during the life of the project (25 years), it is reasonable to assume that fish stocks (on average) could remain similar to levels described in the document and fishing pressures would remain similar to current levels. See also Response 5-18.

5-11. The Holman paper referenced in the comment examines a process followed in Oregon to resolve conflicts between the fishing industry and the submarine cable industry. The basic conclusion of the Holman paper is that negotiation between the two industry groups can be used to establish agreements to resolve disputes over multiple uses of the sea floor. While the Holman paper provides useful information regarding the Oregon case study, it does not provide any information specifically relevant to the impact analysis presented in the Draft EIR/EIS specifically in Section 4.2.4. As such, the Holman paper was not referenced in the Draft EIR/EIS.

5-12. The potential impacts on commercial fishing are sufficiently analyzed in the Draft EIR/EIS to determine if any of the significance criteria listed in Section 4.2.3 of the Draft EIR/EIS would be exceeded by the proposed Project. The Draft EIR/EIS acknowledges that there is a risk that commercial fishing equipment that contacts the bottom, e.g., trawl doors, could snag the cable and cause damage to or loss of fishing gear. As detailed in Section 2.2 and described above in Response 5-2, otter trawl doors typically penetrate the seafloor between 1-2 inches, but can penetrate as deep as 1.6 feet if the trawl becomes buried or falls on its side. Since trawling has the highest potential to interact with the cable in both buried and unburied areas, it was used as the worst-case fishing method to assess cable impacts. Other methods of fishing such as traps from the crab fishery were also factored into the impact analysis. However, this potential impact is determined to be adverse (Class III), but not significant based on the significance criteria developed by the Lead Agencies and presented in the Draft EIR/EIS; therefore, no mitigation measures are required. Although potential impacts associated with a gear snags have been determined to be not significant, the implementation of a process between the Applicant and the fishing community for reimbursement for lost or damaged fishing gear would reduce potential adverse impacts further by providing a mechanism for compensating fishermen for damages. The MBNMS will work with State agencies to implement necessary reimbursement provisions for fishing gear that is lost or damaged by interactions with the proposed cable.

It is acknowledged that fishermen were not directly contacted during the preparation of the impact analysis because recent information from fishermen in

the project area was available in written reports. However, data provided by the fishermen themselves to the California Department of Fish and Game (CDFG) in the form of log book entries (trawl logs) and catch block data were used to determine the level of potential impact on fishing methods that directly contact the bottom (trawls, traps). These types of data are presumed to be accurate and have been routinely used to describe fishing-related impacts of offshore projects throughout the State. The cable snag model described on page 4.2-14 of the Draft EIR/EIS was developed by Global Photon, Inc., for the Global West Network (CSLC 2000), a cable that was installed in 2001 between Morro Bay and San Diego, California. This model uses the most applicable database on cable faults (interaction between the maritime industry and telecommunications cables), with particular emphasis on cables off the west coast and Canada due to the similarities in habitats, cables, and fishing gear. These data, combined with the most current fishing information (catch block data), showed that the potential for snagging the cable is extremely low. In addition, the most recent AT&T data on cable faults off California (AT&T 2003) indicates there have been no faults reported from the fishing industry on these cables since their installation in 2000. Some fishing gear and other materials have been found attached to the cable, but none was determined to be related to trawling. More importantly as related to potential faults, the AT&T results indicating no reported faults should be very applicable to the proposed MARS cable since both include buried and unburied segments that are within commercially trawled areas.

The Holman thesis does cite an AT&T report (1993) which indicates that a fisherman snags a cable somewhere in the world at least twice a month. However, this figure applies to all known submarine cables worldwide, both buried and surface laid, and is not applicable to assessing potential snags to buried cables on the west coast of the United States. As stated above, the most recent AT&T data for their buried west coast cables indicates no faults have been reported on their cables from commercial fishing since their installation off the California coast between Morro Bay and San Diego in 2000. In addition, no faults have been reported by AT&T on any AT&T buried cables since installation (AT&T 1999). Comparison of as-laid burial data from 2001 and the 24-month re-survey conducted in 2003 did not reveal any changes in the burial state of any of the AT&T cables due to fishing conflicts or sediment movement. In addition, AT&T (1999) indicates that since 1967, when AT&T began burying cables, there have not been any instances of a buried cable becoming unburied.

The Draft EIR/EIS acknowledges that there is a potential for trawl gear and other bottom-fishing gear, such as traps from the crab fishery, to snag the cable in areas where the cable is not buried. However, this likelihood is expected to be low (e.g. 1 in 26 years), as documented on page 4.2-14 of the Draft EIR/EIS. Recent data from the ATOC cable suggest that interactions between fishing gear and an unburied cable are possible. For example, the ATOC cable may have been snagged by fishing gear once or twice since it was installed in 1995, although, no reports of snags have been documented. As a general indication of the potential for interactions between fishing gear and the ATOC cable, commercial trawl information (trawl track data) indicates that 1,867 trawls were conducted in the cable region between 1997 and 2003, with the highest number occurring in 1997 (471) and the fewest in 2001 (139) (CDFG unpublished data). In comparison to the ATOC data, a total of 2,475 trawls occurred over the proposed MARS cable route during the same time period (CDFG unpublished data). However, when considering only the unburied segments of the MARS cable (~12 km), a total of 726 trawls were conducted in this area, with the greatest number occurring in 1998 (218) and the fewest in 2003 (52). If these data are standardized to the number of trawls per km of cable (trawling intensity), more trawls were conducted over the MARS unburied section of cable (range: 4.3-18.2 trawls/km) than the ATOC cable (range: 1.5-5.0 trawls/km). Thus statistically, there appears to be a greater potential for fishing gear and cable interactions along the unburied MARS route, compared to the entire ATOC route.

Of the two analyses described above, greater reliance on the documentation presented on page 4.2-14 of the Draft EIR/EIS is warranted because it is based on over four years of actual operating experience of a cable system that is comparable to the proposed Project, e.g., installation methodologies, situated in an area historically fished by trawlers, and comprising both buried and unburied portions. Therefore, potential impacts from potential snagging of the MARS cable by fishing gear remains adverse (Class III), but not significant because the potential impact remains below the Significance Criteria within Section 4.2 of the Draft EIR/EIS. See also response 5-3 in this regard.

5-13. As indicated in the response to Comment 5-12 above, the cable snag model identifies the potential for cable snags and the number of reported faults on west coast cables that have occurred since 2000. This information is based on AT&T data for buried fiber optic cables. In addition, it should be noted that the MARS cable would be buried for approximately 76 percent of the proposed route while the ATOC/Pioneer Seamount Cable mentioned in the summary report described

by Kogan et al. (2003) was installed unburied along its full length, even though some sediment movement has buried much of the cable in shallow shelf areas to depth of 27 cm, while most of the deeper offshore areas remain unburied. In addition, as noted in the response to Comment 5-10, the Draft EIR/EIS acknowledges that there is a risk that commercial fishing equipment that contacts the bottom, i.e., trawl doors, could snag unburied sections of the cable and cause damage to or loss of fishing gear.

The Kogan et. al. study of the ATOC cable indicates that there may have been a few (up to two) times that the cable was "snagged," presumably by whatever mechanism made tracks in the seafloor near the cable, concluding the cable could have been snagged by a trawler. Since the entire length of ATOC cable (59 miles) (95 km) was surfaced laid (unburied), it is reasonable to expect that this cable is more likely to be snagged than cable that is buried. The MARS cable would be buried over 76 percent of the route, with only a small portion 7.4 miles (12 km) that would not achieve maximum burial. The unburied area of the MARS cable is in hard bottom habitat where trawling does occur, so it is possible, as the Draft EIR/EIS acknowledges, that the MARS cable (and science node) could be snagged. However, it is unlikely that the cable will be snagged at a greater frequency than described in section 4.2 (a few times over the life of the cable), since the length of unburied cable is significantly less than that of ATOC. As noted in the detailed above in Response 5-12, there is a higher trawl intensity (number of trawls/km) in the unburied portion of MARS as compared to ATOC. This is due to overall higher fishing pressure (more total trawls) in Monterey Bay (2,475) along the proposed MARS route between 1997 and 2003 compared to the Half Moon Bay region (1,867), where the ATOC cable is located. Nonetheless, potential impacts from the snagging of fishing gear would remain less than significant. Additional information regarding potential cable snags on the MARS cable is identified in response to comment 5-12 above.

5-14. Section 4.2-4 of the Draft EIR/EIS describes the potential impacts that may occur on commercial fishing due to the proposed Project. Sections 4.2 and 4.7 of the Draft EIS/EIR contain information identifying marine vessel use and commercial and recreational fisheries data for the proposed project route. Specific fishing data and historic trawl track information is identified in Table 4.2-2 of the Draft EIR/EIS. In addition, Section 2.2 of the Draft EIR/EIS describes the techniques that will be used to bury the cable to a maximum depth of approximately 3.3 feet (1 meter). As the cable would be buried over a large portion of the proposed route (approximately 76 percent), the impacts identified on commercial fishing

described in Section 4.2 of the Draft EIR/EIS are appropriate. Furthermore, the likelihood of repeated repairs to the cable and the potential impacts associated with this activity is considered extremely low because of the extent of burial, unlike the ATOC cable, which is not buried. Please also see section 4.2 of the Draft EIR/EIS and the response to Comment 5-12 above.

5-15. Based on the analysis presented in the Draft EIR/EIS and the established impact significance criteria, the proposed Project's effect on commercial fishing from cable snagging would be adverse, not significant. As indicated in the responses to Comments 5-12, 5-13, and 5-14, the MARS cable would be buried to a maximum depth of approximately 3.3 feet (1 meter) for over 76 percent of the proposed route. The ATOC cable, as well as numerous world-wide cables cited by ACSF, were installed on the seafloor and not buried; ATOC consists of 59 miles (95 km) of unburied cable. As the most current information regarding cable snags provided by AT&T on buried cables off California indicates that no faults have occurred since their installation in 2000, the likelihood of repeated snags on the buried section of the MARS cable is considered improbable. In addition, as described on page 4.2-7 of the Draft EIR/EIS, part of the shelf and proposed cable route has been closed to commercial trawling as a Rockfish Closure Area (RCA) since 2002. Since these areas are essentially closed to fishing, impacts from cable activities would not occur in these areas (see Figure 4.2-3). It is presently unknown whether closed areas will reopen or whether additional closures will occur. However, the impact analysis used for this evaluation did not take into account closure areas or whether cables were buried or unburied (worst-case).

Considering the conservative (worst case scenario) approach of the risk analysis that presumes the potential for impacts associated with potential fishing conflicts, the CSLC and MBNMS believe the Draft EIR/EIS advances the analysis of the issue beyond the concept of a "precautionary principle" with respect to "Commercial and Recreational Fisheries".

The commenter incorrectly assumes that MBARI prepared the EIR/EIS. In fact, it was prepared by the CSLC and MBNMS with the assistance of objective, third party environmental consultants retained after an open, competitive bid process.

5-16. As indicated in the response to Comment 5-12 above, information on total catch and value, supplied by fishermen to the CDFG (catch block data), was utilized to analyze potential impacts of the proposed Project. In addition, Figure 4.2-2 of the Draft EIR/EIS provides information addressing the frequency of trawling over

the proposed cable route. This data was obtained from trawl log book data, which was supplied by fishermen to CDFG. Subsequent comment noted.

5-17. As indicated in the discussion of Impacts CRF-1 and CRF-2 in Section 4.2.4 of the Draft EIR/EIS, the proposed Project does not include any new exclusion areas for fishing. Therefore, no additional area would be off limits to fishing as a result of the proposed Project.

5-18. Please also see the response to Comment 5-5 above. Information on both commercial and recreational fishing activity in the study area is presented in Section 4.2.1 of the Draft EIR/EIS, including information on fishing methods, target fish species, and the size of the Monterey Bay fishing industry. As summarized in the response to Comment 5-12, the cable snag analysis used in the Draft EIR/EIS was used in a previously State-certified EIR and uses the most recent fisheries and relevant cable fault data. In addition, conflicts between the fishing industry and the MARS cable are not comparable to the ATOC cable or to a large number of other fiber optic cables worldwide primarily due to cable burial techniques verses non-burial. Furthermore, as described in responses to Comments 5-12, 5-13, and 5-14, the most current information on AT&T buried cables off California indicates that no faults have occurred since their installation in 2000, primarily due to cable burial requirements. These cables include areas that are not buried, but located in heavily fished (trawled) areas such as off Morro Bay, California.

Section 4.2.4 of the Draft EIR/EIS provides an assessment of the Project's potential impacts on fisheries based on the significance criteria established by the Lead Agencies. The analysis is intended to be objective and at a level detail appropriate to support the impact conclusions. The impact analysis presented did not take into account areas that are or may be closed to fishing, i.e., the analysis is based on unrestricted fishing along the entirety of the cable route. Please refer also to responses 5-10 and 5-15. Accordingly the Lead Agencies do not concur with the conclusion of the comment.

The Pacific Fishery Management Council and the National Marine Fisheries Service have been engaged in a multi-year process to identify and protect Essential Fish Habitat for groundfish as required by the 1996 amendments to the Magnuson-Stevens Act. At the time of this Draft EIR/EIS, the Council has selected preferred actions pursuant to this requirement which may have bearing on this Project. The "Monterey Canyon" has been proposed as Essential Fish Habitat for groundfish and a prohibition on trawling in this region has been

identified as a preferred action. The exact boundaries of the "Monterey Canyon" have yet to be resolved and it is not yet clear how much of the proposed cable route will fall within the closure. A final rule implementing the closure of "Monterey Canyon" would be published in the Federal Register in May of 2006. Like all administrative closures, such an action could be subject to future review should new information become available; however, it will have an indefinite life span when implemented. This closure is not a factor considered in any analysis in this document; however, it is worth noting that the regulatory environment is dynamic.

5-19. The location of the installed cable would be public information. NOAA's Office of Coast Survey typically includes cables on navigational charts and NOAA's National Ocean Service publishes *Coast Pilots*, which are a series of books that cover a variety of information important to navigators, including the locations of cables and descriptions of cable clearances. Please also see response to Comment 1-13. Existing requirements to avoid conflicts with vessel traffic, including fishing vessels, are described in the Draft EIR/EIS (see Section 4.7.2 of the Draft EIR/EIS) in addition to measures proposed by the Applicant (see Section 2.4 of the Draft EIR/EIS). Mitigation measures are also proposed in the Draft EIR/EIS to avoid marine vessel traffic conflicts and delays (see Section 4.7 of the Draft EIR/EIS).

5-20. Please see the responses to Comments 1-6 and 5-3.

5-21. Please see the responses to Comments 5-4, 5-3, and 5-12.

5-22. The Draft EIR/EIS's discussion of "Sensitive Habitats and Species," with reference documentation, begins on page 4.5-12 and an Essential Fish Habitat Assessment for the proposed Project is included as Appendix D.1 of the document. The purpose of the analysis is to complement, not duplicate the Section 7 consultation process under the federal Endangered Species Act. The MBNMS, CSLC, and other agencies, see Comment Set 3 (federal EPA) and Comment Set 6 (NOAA National Marine Fisheries), believe the level of information, analyses, and mitigation within the Draft EIR/EIS is "adequate." The USFWS Biological Opinion has not been issued at this time; however, any lease issued to MBARI by the CSLC will require compliance with the requirements of all other agencies. Any requirements of the USFWS above these specified in the Final EIR/EIS will therefore be enforced by the provisions of the lease.